

# Satellite Sentinel Project

## PIPELINE: EVIDENCE OF THE DESTRUCTION OF KEY OIL INFRASTRUCTURE, HEGLIG

REPORTED BY



Harvard  
Humanitarian  
Initiative

22 APRIL 2012

The Satellite Sentinel Project (SSP), through the Harvard Humanitarian Initiative's analysis of DigitalGlobe satellite imagery captured 15 April 2012, has found evidence of the destruction of key oil pipeline infrastructure in Heglig, South Kordofan, Sudan. SSP has also found cratering consistent with bombardment of some form visible in close proximity to nearby oil pipeline and oil production facilities. SSP cannot make a determination based on the evidence currently available as to either who destroyed the object consistent with an oil collection manifold or the precise date it was destroyed. SSP also cannot conclude whether the apparent manifold's destruction was the result of aerial bombardment or ground action.

### SIGNIFICANCE OF OIL COLLECTION MANIFOLD

In oil pipeline systems, a collection manifold is an accessory which connects various piping systems together to either divide or combine different flows of oil. The destroyed structure appears consistent with a collection manifold because of its shape and its location at the junction of multiple pipelines. The destruction of this particular collection manifold would likely result in the immediate cessation of oil flow in the area.<sup>1</sup>

### CONFLICT IN HEGLIG

After reportedly repulsing an attack by Sudan Armed Forces (SAF) on Sudan People's Liberation Army (SPLA) positions in Teshwin, SPLA retaliated by advancing into Heglig on 9 April 2012.<sup>2</sup> As of 10 April, SAF spokesman al-Sawarmi Khaled reported, "Now the [soldiers] from South Sudan they are inside Heglig city, and the oilfield, they conquered the Sudanese army out of Heglig [sic]."<sup>3</sup> Both sides claim sovereignty over Heglig, which South Sudan refers to as Panthou. On 15 April, South Sudan's information minister, Barnaba Marial Benjamin, told reporters in Juba that the aerial bombardment of the facility in the Heglig region had caused serious damage. He stated, "They are bombing the central processing facility and the [oil] tanks to rubble as we speak."<sup>4</sup> On 20 April, South Sudan's military spokesman, Col. Philip Aguer, announced that SPLA would withdraw from Heglig within three days.<sup>5</sup> On 21 April, Sudan's Acting Minister of Information Sana Hamad reported that the Government of Sudan possessed evidence of intentional sabotage to the oil installations carried out by southern-aligned forces.<sup>6</sup>

### SOURCES

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3. "Sudan says South Sudan controls largest oil field." BBC. 10 April 2012. Retrieved from: <http://www.bbc.co.uk/news/world-africa-17672727>
4. "Juba accuses Khartoum of bomb attack." *The Guardian*. 15 April 2012. Retrieved from: "<http://www.guardian.co.uk/world/2012/apr/15/south-sudan-accuses-sudan-bombing-oilfield>"
5. "South Sudan to pull out of border oil town, president says, easing military crisis with Sudan." AP. 20 April 2012. Retrieved from: [http://www.washingtonpost.com/world/middle\\_east/south-sudan-to-pull-out-of-border-oil-town-president-says-easing-military-crisis-with-sudan/2012/04/20/gIQAAsNHVT\\_story.html](http://www.washingtonpost.com/world/middle_east/south-sudan-to-pull-out-of-border-oil-town-president-says-easing-military-crisis-with-sudan/2012/04/20/gIQAAsNHVT_story.html)
6. "Sudan confirms Intentional Sabotage to the Heglig Oil Installations." *Al-Youm Al-Sabe'a*. 21 April 2012. Retrieved from: <http://www3.youm7.com/News.asp?NewsID=658968&SecID=88&IssueID=0>

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### ABOUT THE PROJECT

Satellite Sentinel Project conducts regular, intensive monitoring of Sudan to assess the current human security situation and identify potential threats to civilians.

Analysis prepared by Harvard Humanitarian Initiative.  
Imagery and additional analysis provided by DigitalGlobe.



STRUCTURE  
CONSISTENT WITH  
COLLECTION MANIFOLD

PIPELINE



7 FEB 2012

15 APR 2012

STRUCTURE CONSISTENT WITH COLLECTION  
MANIFOLD APPEARS INTACT AS OF 7 FEB 2012

APPARENT DESTRUCTION OF COLLECTION  
MANIFOLD AS OF 15 APRIL 2012

Satellite Sentinel Project

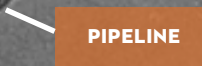
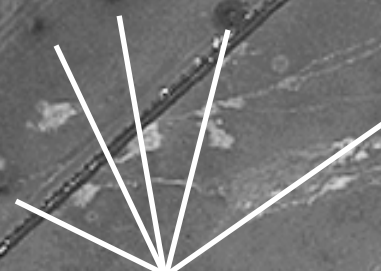
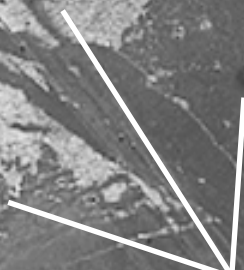


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DIGITALGLOBE

15 APRIL 2012 | FIG. 1B  
APPARENT DESTRUCTION OF COLLECTION MANIFOLD, HEGDIG OILFIELD | HEGDIG, SOUTH KORDOFAN, SUDAN









FIGHTING POSITIONS

350 M

TWO HEAVY EQUIPMENT TRANSPORTS APPEAR 350 M TO THE NORTH

FIGHTING  
POSITIONS

THREE VEHICLES  
CONSISTENT WITH  
MAIN BATTLE TANKS

CRATERING  
CONSISTENT WITH  
BOMBARDMENT

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PIPELINE

CRATERING  
CONSISTENT WITH  
BOMBARDMENT

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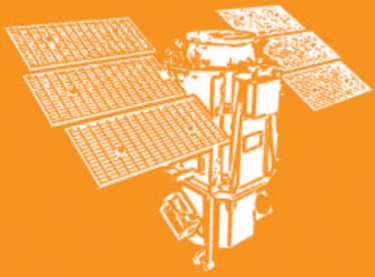


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DIGITALGLOBE

CRATERING CONSISTENT WITH BOMBARDMENT NEAR OIL INFRASTRUCTURE | HEGLIG, SOUTH KORDOFAN, SUDAN

15 APRIL 2012 | FIG. 3



# Satellite Sentinel Project

## ABOUT THE PROJECT AND THE PARTNERS

### THE WORLD IS WATCHING BECAUSE YOU ARE WATCHING.

SSP launched on December 29, 2010, with the goals of preventing a return to full-scale civil war between northern and southern Sudan as well as deterring and documenting threats to civilians along both sides of the border. SSP focuses world attention on pending incidents of mass violence in Sudan and uses its imagery and analysis to generate rapid responses on human rights and human security concerns.

The project works like this: DigitalGlobe satellites passing over Sudan and South Sudan capture imagery of possible threats to civilians, detect bombed and razed villages, or note other evidence of pending mass violence. The Harvard Humanitarian Initiative analyzes the imagery, open source data, and information from sources on the ground to produce reports. The Enough Project contributes field reports, policy analysis, and communication strategy and, together with Not On Our Watch, pressures policymakers by urging the public to act.

SSP is the first sustained public effort to systematically monitor and report on potential hotspots and threats to human security in near real-time. SSP synthesizes evidence from satellite imagery, data pattern analysis, and ground sourcing to produce reports.

Not On Our Watch – co-founded by Don Cheadle, George Clooney, Matt Damon, Brad Pitt, David Pressman, and Jerry Weintraub – has provided seed money to launch the project. To support the Satellite Sentinel Project, donate at [www.satsentinel.org](http://www.satsentinel.org).

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